

II. CLAIM AMENDMENTS

A1 1. (Original) Method for processing IP traffic based on information within TCP headers carried in IP datagrams, in which traffic at least some of the IP datagrams are encrypted, characterized in that

if an IP datagram to be encrypted contains TCP header information used as a basis for the processing, at least an indication of the information on which the processing is based is placed into the header of said datagram.

2. (Original) A method according to claim 1, characterized in that if an IP datagram to be encrypted contains a TCP acknowledgment, and indication of the acknowledgment is placed into the header of said datagram.

3. (Original) A method according to claim 1, characterized in that said placing of at least an indication into the header of said datagram comprises placing a copy of at least the information on which the processing is based into the header of said datagram.

4. (Original) A method according to claim 3, characterized in that said placing of at least an indication into the header of said datagram comprises placing of all information of a TCP header into the header of said datagram.

AI 5. (Original) A method according to claim 3, characterized in that a copy of a TCP acknowledgement number is placed into the header of said datagram.

6. (Original) A method according to claim 3, characterized in that a copy of the contents of the window size field of a TCP header is placed into the header of said datagram.

7. (Original) A method according to claim 1, characterized in that if said datagram is an Ipv4 datagram, said at least an indication is placed in an options field of said datagram.

8. (Original) A method according to claim 1, characterized in that if said datagram is an Ipv6 datagram, said at least an indication is placed in an extension header in said datagram.

9. (Original) A method according to claim 3, in which method

-a source network element generates IP datagrams,

-an intermediate network element forwards the IP datagrams to a destination network element, and

-the destination network element receives the IP datagrams,

characterized in that

the intermediate network element modifies said copy of the information on which the processing is based.

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10. (Original) A method according to claim 9, characterized in that

said destination network element uses said modified copy of the information instead of the encrypted version of the information carried as the payload of the IP datagram.

11. (Original) A method according to claim 1, being used in congestion control in a TCP/IP network, characterized in that

the method comprises the step of delaying the transmission of an encrypted IP datagram by a network element, if said encrypted IP datagram comprises an indication of a TCP acknowledgement and if said network element detects congestion in the network.
